



1. Identification

Product identifier GRADE 00 EXPANDABLE POLYSTYRENE (UNITED STATES - ENGLISH)

Other means of identification

SDS number 20523

Recommended use Industrial manufacture of packaging, construction materials, safety gear, and is also used in other

miscellaneous applications.

Recommended restrictions Not assigned.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Flint Hills Resources Peru, LLC

501 Brunner Street

Peru, IL 61354 United States

**Supplier** 

Flint Hills Resources, LP 1330 Lake Robbins Drive

Suite 400

The Woodlands, TX

77380 United States

Telephone numbers - 24

hour emergency

assistance

Chemtrec (US) 800-424-9300

**Carechem24 (Asia)** 65 3158 1074 (Singapore) **Carechem24** 44 (0) 1235 239 670 (UK)

(Europe)

Carechem24 866-928-0789

(US/Canada)

Carechem24 52 555 004 8763

(Mexico)

Flint Hills 815-224-1525

Resources, LP (after business hours)
Telephone numbers -

general assistance

**8-5 (M-F, CST)** 815-224-5257

Customer Service

**8-5 (M-F, CST) MSDS** 316-828-7988

**Assistance** 

Email: msdsrequest@fhr.com

**Product code(s)** 1005; 1008; 1008M; 1010; 1017A; 1998; 1998M

2. Hazard(s) identification

Physical hazardsNot classified.Health hazardsNot classified.

OSHA defined hazards Combustible dusts Classified

Label elements

Hazard symbol None.

Signal word Warning

Hazard statement Not applicable.

Prevention Not applicable.

Response Not applicable.

Storage Not applicable.

Disposal Not applicable.

s) not otherwise Not classified.

Hazard(s) not otherwise classified (HNOC)

Supplemental information

Hazard statement IN USE, MATERIAL MAY RELEASE PENTANES, A FLAMMABLE HYDROCARBON, WHICH

MAY FORM A FLAMMABLE/EXPLOSIVE VAPOR-AIR MIXTURE.

May form combustible dust concentrations in air if converted to small particles during further processing, handling, or by other means. This material may accumulate electrostatic charge which may cause an electrical spark (ignition source) in some cases. When it is heated, this material may cause thermal burns. Spilled pellets present a slipping hazard on hard surfaces.

Prevention

Prevent dust accumulation to minimize explosion hazard. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Wear protective gloves/eye protection/face protection. Store in a well-ventilated place and keep cool. Clean up spilled material immediately.

# 3. Composition/information on ingredients

Components	Common name and synonyms	CAS number	%
POLYSTYRENE		9003-53-6	92.3 - 99 %
PENTANES (ALL ISOMERS)		Mixture	0 - 7.6 %
MODIFIERS AND/OR ADDITIVES		Mixture	0 - 4 %

#### **Composition comments**

Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

This Safety Data Sheet is intended to communicate potential health hazards and potential physical hazards associated with the product(s) covered by this sheet, and is not intended to communicate product specification information. For product specification information, contact your Flint Hills Resources, LP representative.

#### 4. First-aid measures

**Inhalation** Remove to fresh air. If overcome from exposure to excessive levels of dust, mist, or fumes,

remove affected individual from source of exposure to fresh air. Get medical attention.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

**Skin contact** If hot material gets on skin, immediately flush affected area with large amounts of cool water. Do

not attempt to remove the material from the skin, or to remove contaminated clothing. Get

immediate medical attention.

For cold material, immediately wash skin with plenty of soap and water after removing

contaminated clothing and shoes. Get medical attention if irritation persists.

Eye contact If hot material comes in contact with eyes hold the eyelids apart and flush the eye with a large

amount of cool water for at least 15 minutes. Get immediate medical attention.

If eyes become irritated from contact with dust, flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get

medical attention if irritation persists.

**Ingestion** Do not induce vomiting. Never give anything by mouth to an unconscious person.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Material name: GRADE 00 EXPANDABLE POLYSTYRENE (UNITED STATES - ENGLISH) 20523 Version #: 04 Revision date: 06-18-2015 Issue date: 06-18-2015

# Most important symptoms/effects, acute and delayed

#### INHALATION:

Dusts may cause irritation to the nose, throat and lungs by mechanical abrasion. Fumes or vapors from the heated material may be irritating to the respiratory tract. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death. See "Toxicological Information" (Section 11) for more information.

#### SKIN:

Dusts may cause irritation due to abrasion. Repeated or prolonged skin contact may cause reddening, itching and inflammation.

#### EYES:

Dusts may cause mechanical irritation including pain, tearing and redness. Effects may become more serious with repeated or prolonged contact.

#### INGESTION:

Ingestion of large amounts may cause gastrointestinal disturbances.

# Indication of immediate medical attention and special treatment needed

INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

EYES: Hot material may cause burns to the eyes. Early ophthalmologic evaluation is recommended.

SKIN: Hot material may cause skin burns. Immerse skin covered with hot material in cool water to limit tissue damage and prevent spread of liquid material. Consider leaving cooled material on skin unless contraindicated by contamination or potential for tattooing. If removal is necessary, mineral oil may be of assistance in minimizing skin loss when removing cool, hardened asphalt.

# 5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing media

Specific hazards arising from the chemical

Use water spray, dry chemical, carbon dioxide, or fire-fighting foam for fires to extinguish fire. Do not use a solid water stream as it may scatter and spread fire.

Combustion may produce hazardous decomposition products and other decomposition products in the case of incomplete combustion. These may include simple hydrocarbons to toxic and irritating gases such as carbon, carbon monoxide, carbon dioxide, styrene, acids, ketones, and aldehydes.

Material is a solid containing an extremely flammable liquid and vapor. Material will burn on contact with flame or exposure to high temperature. Hazardous melting and dripping may occur at elevated temperatures. Explosion hazard if exposed to extreme heat.

This material releases a flammable blowing agent. Extremely flammable vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources and flash back. Eliminate ignition sources (including static spark) and prevent vapor accumulation.

This material, as produced and not in its finely divided form as dust, is not explosive as defined by established regulatory criteria.

When in its finely divided form as dust, this material presents an explosion hazard when dispersed in a confined area and ignited in air. Risk of dust-air explosion is increased if flammable vapors are present.

This material may accumulate static charge which can cause an electrical spark (ignition source) in some cases. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

See Combustible Dust Property data in Section 9.

For additional safety information, consult the current editions of the National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, NFPA 499, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas, NFPA 77, Recommended Practice on Static Electricity, and NFPA 68, Standard on Explosion Protection by Deflagration Venting.

# Special protective equipment and precautions for firefighters

Evacuate area and fight fire from a safe distance.

If spilled material has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel. Use water spray to cool adjacent structures.

Firefighters must wear NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary people away; isolate hazard area and deny entry. For spills in confined areas, ensure adequate ventilation. For spills outdoors, stay upwind. Spilled pellets present a slipping hazard on hard surfaces. IF TANK, RAILCAR OR TANK TRUCK IS INVOLVED IN A FIRE, isolate for 800 meters (1/2 mile) in all directions. Evacuate area endangered by release as required. Wear appropriate personal protective equipment. See Exposure Controls/Personal Protection (Section 8).

# Methods and materials for containment and cleaning up

Keep unnecessary people away. Isolate area for at least 25 meters (75 feet) in all directions to preserve public safety. For large spills, if downwind consider initial evacuation for at least 100 meters (300 feet).

Eliminate all sources of ignition (no smoking, flares, sparks or flames in immediate area). Prevent or minimize formation of a dust cloud or layer during cleanup. This material releases a flammable blowing agent. In its finely divided form, this material may present an explosion hazard when dispersed in a confined area and ignited in air.

Small spills can be cleaned up using non-sparking tools. Avoid procedures that may result in formation of a dust cloud or in water pollution. Place in an appropriate container for disposal or recycle.

For large spills and releases follow the handling and storage recommendations as detailed in NFPA 654, NFPA 499 and NFPA 77. Grounding, bonding, and intrinsic safety of equipment used should be considered.

Do not touch or walk through spilled material. Stop spill when safe to do so.

See Exposure Controls/Personal Protection (Section 8).

#### **Environmental precautions**

Prevent entry into water ways, sewers, basements or confined areas. Notify local, provincial and/or federal authorities, if required.

## 7. Handling and storage

#### Precautions for safe handling

Minimize vapor accumulation in confined spaces with positive ventilation. Minimize dust generation during handling and contact.

This material, as produced and not in its finely divided form as dust, is not explosive as defined by established regulatory criteria.

This material, in its finely divided form, presents an explosion hazard when dispersed in a confined area and ignited in air.

Dusts may become explosive when dispersed in a confined space such as a building or vessel and in the presence of oxygen and heat (spark). Risk of dust-air explosion is increased if flammable vapors are present.

This material may accumulate electrostatic charge which may cause an electrical spark (ignition source) in some cases.

Ground and bond lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. When airborne dust or a dust cloud is present, do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards. Do not use electronic devices while handling, unless the device is certified as intrinsically safe as they could present ignition sources.

Facilities using this material should assess their potential for combustible dust and static spark hazards and follow applicable federal, state and local laws and regulations and accepted codes and standards.

Avoid accumulation of dust on surfaces and hidden areas where dust may collect in the interior of buildings. Clean up dust using approved methods that do not generate dust clouds if ignition sources are present.

For additional safety information, consult the current editions of the National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, NFPA 499, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas, NFPA 77, Recommended Practice on Static Electricity, and NFPA 68, Standard on Explosion Protection by Deflagration Ventina.

Avoid contact with strong oxidizers. Prevent small spills to minimize slip hazard or release to the environment. Do not cut, grind, drill, weld (or introduce any other ignition source) on empty containers or reuse containers unless adequate precautions are taken. Avoid extreme temperatures to minimize product degradation.

Avoid personal contact with this material. Always observe good personal hygiene measures, such as removing contaminated clothing and protective equipment, washing after handling the material and before entering public areas. Restrict eating, drinking and smoking to designated areas to prevent personal chemical contamination. Routinely wash work clothing and protective equipment to remove contaminants. Do not breathe dust or vapor.

Conditions for safe storage, including any incompatibilities Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid contact with strong oxidizers. Empty containers may contain material residue. Do not reuse without adequate precautions.

#### 8. Exposure controls/personal protection

#### Occupational exposure limits

U.S OSHA Material	Туре	Value	Form
GRADE 00 EXPANDABLE POLYSTYRENE (UNITED STATES - ENGLISH) (CAS Mixture)	TWA	5 mg/m3	PNOR (Particles not otherwise regulated) - RESPIRABLE FRACTION (8-Hr)
		15 mg/m3	PNOR (Particles not otherwise regulated) - TOTAL DUST (8-Hr)

Components	Туре	Value	
PENTANES (ALL ISOMERS) (CAS Mixture)	TWA	1000 ppm	
U.S Minnesota (MNOSHA	<b>A)</b>		
Components	Туре	Value	
PENTANES (ALL ISOMERS) (CAS Mixture)	STEL	750 ppm	
	TWA	600 ppm	
ACGIH			_
Material	Туре	Value	Form
GRADE 00 EXPANDABLE POLYSTYRENE (UNITED STATES - ENGLISH) (CAS Mixture)  US. ACGIH Threshold Limit	TWA	3 mg/m3 10 mg/m3	PNOS (Particles not otherwise specified) - RESPIRABLE PARTICULATE (8-Hr) PNOS (Particles not
	t Values	10 mg/mo	otherwise specified) - INHALABLE PARTICULATE (8-Hr)
Components	Type	Value	
PENTANES (ALL ISOMERS) (CAS Mixture)	TWA	1000 ppm	
US. NIOSH: Pocket Guide t	o Chemical Hazards		
Components	Туре	Value	
PENTANES (ALL ISOMERS) (CAS Mixture)	Ceiling	610 ppm	
	TWA	120 ppm	
logical limit values	No biological exposure lir	nits noted for the ingredient(s).	
osure guidelines			
US. California Code of Reg	ulations, Title 8, Section 5	55. Airborne Contaminants	
PENTANES (ALL ISOM)	ERS) (CAS Mixture)	1800 MGM3 - 600 PPM	
propriate engineering ntrols	classified electrical equip	oment if high dust/air concentrations are prent and powered industrial trucks. If use on to keep exposure to airborne contami	er operations generate dust,
		dust control equipment such as local ex	

Other

transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

# Individual protection measures, such as personal protective equipment

Eve/face protection Keep away from eyes. Eye contact can be avoided by using chemical safety glasses, goggles

and/or face shield. Have eye washing facilities readily available where eye contact can occur.

**Hand protection** Avoid skin contact with this material. Use chemical resistant gloves when handling this material. Contact the glove manufacturer for specific advice on glove selection regarding permeability and

breakthrough times for your use conditions. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

When handling hot material, use heat resistant gloves.

Avoid skin contact with this material. Additional protection may be necessary to prevent skin

contact including use of apron, armcovers, face shield, or boots.

**Respiratory protection** A NIOSH approved dust respirator may be appropriate under certain circumstances where

airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. See OSHA 29 CFR 1910.134 for more information regarding respiratory protection and Assigned Protection Factors (APFs).

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary. Contact with hot material can

cause thermal burns which may result in permanent damage.

# 9. Physical and chemical properties

**Appearance** 

Physical stateSolid.FormBeadColorWhite

Odor Hydrocarbon
Odor threshold Not available.
pH Not applicable

Melting point/freezing point Softens & expands @ 93.3-101.7 °C (200-215 °F) (EPS beads containing pentanes)

Initial boiling point and boiling

range

Not applicable

Flash point -60 °F (-51.11 °C) (as pentanes) (estimated)

Evaporation rate Not applicable
Flammability (solid, gas) Not applicable.
Upper/lower flammability or explosive limits

Flammability limit - lower

1.4 % (as pentanes)

(%)

Flammability limit - upper

8.3 % (as pentanes)

(%)

Explosive limit - lower (%) See flammability limit

Explosive limit - upper (%) See flammability limit

Vapor pressure < 100 mmHg @77 °F (25 °C)

Vapor densityNot applicableRelative densityNot available.Solubility(ies)Negligible (<1%)</th>Partition coefficientNot available

(n-octanol/water)

NOT available

**Auto-ignition temperature** 500 °F (260 °C) (as pentanes) (estimated)

Decomposition temperature Not available

Viscosity Not applicable

Other information

Chemical family Polystyrene Thermoplastic Polymer

Density 1.02 g/ml @77 °F (25 °C)

Percent volatile 7.5 Maximum (as pentanes)

## 10. Stability and reactivity

**Reactivity** See statements below.

**Chemical stability** Material is stable under normal conditions. **Possibility of hazardous** Not anticipated under normal conditions.

reactions

Conditions to avoid Avoid unventilated areas, heat, open flames, sparks and ungrounded electrical equipment.

Incompatible materials Incompatible with strong oxidizers. See precautions under Handling & Storage (Section 7).

Not anticipated under normal conditions.

## 11. Toxicological information

Information on likely routes of exposure

IngestionLikely route of exposureInhalationLikely route of exposureSkin contactLikely route of exposureEye contactLikely route of exposure

Symptoms related to the physical, chemical and toxicological characteristics

INHALATION:

Dusts may cause irritation to the nose, throat and lungs by mechanical abrasion. Fumes or vapors from the heated material may be irritating to the respiratory tract. In confined or poorly ventilated

areas, vapors can readily accumulate and can cause unconsciousness and death.

SKIN:

Dusts may cause irritation due to abrasion. Repeated or prolonged skin contact may cause

reddening, itching and inflammation.

EYES:

Dusts may cause mechanical irritation including pain, tearing and redness. Effects may become

more serious with repeated or prolonged contact.

INGESTION:

Ingestion of large amounts may cause gastrointestinal disturbances.

Information on toxicological effects

**Acute toxicity** Polymers are considered to have low toxicity by all routes of exposure.

Components Species Test Results

PENTANES (ALL ISOMERS) (CAS Mixture)

**Acute** 

Inhalation

LC50 Rat > 20000 mg/l, 4 hr LD50 Rat > 25.3 mg/l, 4 hr

Oral

LD50 Rat

Rat > 2000 mg/kg

POLYSTYRENE (CAS 9003-53-6)

Acute

Oral

LD50 Rat > 5 g/kg

Skin corrosion/irritation Serious eye damage/eye Not classified. Not classified.

irritation

Respiratory sensitization Not classified.

Skin sensitization Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

POLYSTYRENE (CAS 9003-53-6)

3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Not classified.

Specific target organ Not classified.

toxicity - single exposure

Specific target organ Not classified.

toxicity - repeated

exposure

Aspiration toxicity Not classified.

PENTANES: Studies of pentane isomers in laboratory animals indicate exposure to extremely high levels (roughly 10 vol.%) may induce cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

# 12. Ecological information

**Ecotoxicity** Material not classified as harmful to aquatic organisms.

Persistence and degradability Not readily biodegradable.

Bioaccumulative potential Not classified in terms of bioaccumulation in aquatic organisms.

Mobility in soil Material is insoluble in water. Due to physical properties, the mobility of this material is expected to

be negligible.

Other adverse effects No other adverse effects expected.

### 13. Disposal considerations

**Disposal instructions** This material, as supplied, when discarded or disposed of, is not a hazardous waste according to

> Federal Regulations (40 CFR 261). The transportation, storage, treatment and disposal of waste material must be conducted in compliance with federal, state, and local regulations. Under RCRA it is the responsibility of the user of the material to determine, at the time of disposal, whether this

material meets RCRA criteria for hazardous waste.

For additional handling information and protection of employees, see Section 7 (Handling and

Storage) and Section 8 (Exposure Controls/Personal Protection).

Hazardous waste code The proper waste code must be evaluated at the time of disposal and should be determined by the

user and waste disposal company.

Waste from residues / unused

products

Dispose of this material in accordance with all applicable local and national regulations.

Contaminated packaging Empty containers should be recycled or disposed of at an approved waste handling site.

# 14. Transport information

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

Not classified for MARPOL. Please contact the Transportation Compliance CSO if transportation mode is ship or vessel to determine the need for a MARPOL classification.

BILL OF LADING - BULK (U. S. DOT): UN2211, Polymeric Beads, Expandable, 9, PG, III

BILL OF LADING - NON-BULK (U. S. DOT): UN2211, Polymeric Beads, Expandable, 9, PG, III

The above description may not cover shipping in all cases, please consult 49 CFR 100-185 for specific shipping information or Transport Compliance Specialist (CSO).

#### 15. Regulatory information

**US federal regulations** 

**General information** 

All ingredients are on the TSCA inventory, or are not required to be listed on the TSCA inventory.

This material does not contain toxic chemicals (in excess of the applicable de minimis concentration) that are subject to the annual toxic chemical release reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).

Check local, regional or state/provincial regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Failure to comply may result in substantial civil and criminal penalties.

This material is intended for use in the manufacture of articles and goods as appropriate. It is the responsibility of the manufacturer to determine that it is safe, lawful and technically suitable for the intended use. This material is not intended for use in the manufacture of any form of implanted medical or surgical device.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)** 

PENTANES (ALL ISOMERS) (CAS Mixture) LISTED

**US CERCLA Hazardous Substances: Reportable quantity** 

PENTANES (ALL ISOMERS) (CAS Mixture) 100 LBS

US EPCRA (SARA Title III) Section 304 - Extremely Hazardous Spill: Reportable quantity

Not regulated.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

#### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

PENTANES (ALL ISOMERS) (CAS Mixture)

**US state regulations**This material, as sold, meets the required

This material, as sold, meets the requirements of the Model Toxics Legislation of the Coalition of Northeastern Governors (CONEG). Any alteration of this material may affect its compliance with

this law.

#### **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer. Proposition 65, CAL. HSC. §25249.5.

This material may contain low levels of ethylbenzene which is regulated under California Proposition 65.

Canadian regulations All ingredients are on the Canadian Domestic Substance List (DSL), or are not required to be listed

on the DSL.

Not controlled under WHMIS (Canada).

# 16. Other information, including date of preparation or last revision

 Issue date
 06-18-2015

 Revision date
 06-18-2015

Version # 04

Further information Not available.

HMIS® ratings Health: 1\*
Flammability: 3
Physical hazard: 0

\* Indicates chronic health hazard

NFPA ratings Health: 1

Flammability: 3 Instability: 0

Disclaimer THIS SDS HAS BEEN PREPARED TO COMPLY WITH FEDERAL REGULATIONS THAT ARE

INTENDED TO QUICKLY PROVIDE USEFUL INFORMATION TO THE USER(S) OF THIS MATERIAL OR PRODUCT - IT IS NOT INTENDED TO SERVE AS A COMPREHENSIVE DISCUSSION OF ALL POSSIBLE RISKS OF HAZARDS, BUT RATHER PROVIDES

INFORMATION GENERALLY ACCEPTED IN THE SCIENTIFIC COMMUNITY AS RELEVANT REGARDING THE POTENTIAL HAZARDS OF THIS PRODUCT. ADEQUATE TRAINING, INSTRUCTION, WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS. USERS SHOULD REVIEW THE INFORMATION IN THE SDS, AND SATISFY THEMSELVES AS TO ITS SUITABILITY AND COMPLETENESS, INCLUDING

ENSURING THAT THIS IS THE MOST CURRENT SDS.

**Revision Information** Exposure controls/personal protection: Appropriate engineering controls

Physical & Chemical Properties: Multiple Properties Disposal considerations: Disposal instructions Regulatory information: US federal regulations Regulatory information: <DOUBLE INDENT>

Completed by Flint Hills Resources, LP - Operations EH&S